



STATE OF HAWAII
DEPARTMENT OF HEALTH
P.O. BOX 3378
HONOLULU, HAWAII 96801-3378

CHIYOME L. FUKINO, M.D.
DIRECTOR OF HEALTH

In reply, please refer to:
EMD / CWS

09005PDL.05

September 6, 2005

Ms. Alexis Strauss, (WTR-1)
Director, Water Division
U.S. Environmental Protection Agency
Region 9
75 Hawthorne Street
San Francisco, California 94105

Dear Ms. Strauss:

This is in response to your letter of December 15, 2004, about the Hawaii Department of Health's (DOH's) interpretation of its own water quality standards, particularly in light of the 301(h) waiver applications by the City and County of Honolulu. Our numbered paragraphs below respond to the bullet points in your letter in the order that you made them.

1. Your stated view of the horizontal scope of Hawaii Administrative Rules (HAR), Section 11-54-08(b) is correct. Within 300 meters (m) of shore, the Hawaii standard for the indicator bacteria enterococcus is currently a geometric mean of seven (7) colony forming units (CFU) per 100 milliliters (ml) and a single sample maximum (SSM) of 100 CFU/100 ml. The remainder of your first bullet point of understanding, including sampling frequency and related matters, is also correct.
2. You are correct that Environmental Protection Agency's (EPA) adopted indicator bacteria criteria apply beyond 300 m and consist of a geometric mean of 35 CFU/100 ml, and require DOH to determine the SSM beyond 300 m within a range of 104-501 CFU/100 ml.

As to the horizontal scope of both points 1 & 2, DOH intends to propose changes that we have discussed with your staff. We prefer that the geometric mean standard be raised to 35 CFU/100 ml, which would be consistent with the EPA imposed standard beyond the present Section 11-54-08(b) zone, and would result in a single 35 CFU/100 ml for all waters from shore to the three (3) mile limit. DOH also intends to propose that the 100 CFU/100 ml SSM be extended to 500 m from shore, and the SSM beyond 500 m be set at 501 CFU/100 ml. Our proposals are subject to further review within DOH, by other state agencies and the Governor, public comment, and EPA concurrence.

3. "Designations" of "waters" and "uses" need to be distinguished. Only the 300 m from shore are "designated" "marine recreational waters" and are done so in HAR, Section 11-54-08(b).

Recreational marine "uses" are designated for protection by HAR, Section 11-54-03, which classifies water uses. HAR, Section 11-54-03(c)(1) for Class AA marine waters identifies the pristine character of such waters and designates various uses, including "compatible recreation." HAR, Section 11-54-03(c)(2), for Class A marine waters covers

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the majority of marine waters and designates various uses, including "recreation." Section 11-54-03(c) also states activity or technology restrictions. For example, zones of mixing are banned from Class AA waters but not from Class A waters.

The designation of all Hawaiian marine waters out to three (3) miles from shore as "coastal recreation" waters is an EPA legal conclusion based on the designated "uses" noted above. By federal regulation EPA imposed the 35 CFU/100 ml standard to three (3) miles from shore and also imposed the SSM requirements.

4. For the vertical scope of the criteria in HAR, Sections 11-54-03(c), 11-54-04, and 11-54-08(b), DOH has not specifically addressed the issue before and does not have a definite answer yet. We are trying to review the documents that led to the original adoption of the criteria. Historically, the Clean Water Branch has not considered human activities below about 50 feet or 15 meters to be recreational, based on staff familiarity with ocean recreation. We acknowledge that the rules themselves do not explicitly distinguish recreational from non-recreational depths, but on the other hand Hawaii's rules do not designate recreational "waters" beyond 300 m either.


While not raised in your letter, your staff has asked how compliance with indicator bacterial standards should be determined when samples are taken from various depths of water. Again, we do not have a definite answer yet.

Perhaps these matters need to be clarified with our next amendments to HAR, Chapter 11-54.

5. You are correct that HAR, Chapter 11-54 does allow for zones of mixing. DOH in the past granted zones of mixing for the Sand Island and Honouliuli wastewater treatment plants, and would consider doing so again, but for 40 CFR 125.62, which you report to require that discharges to be covered under 301(h) waivers must comply with water quality standards outside a zone of initial dilution, instead of a zone of mixing.

We would be most interested in any data or analysis to show the number of swimmers or other recreational full body contact ocean users, particularly more than 500 m from shore, or at depths greater than 15 m, and whether the pathogens in the City's Sand Island or Honouliuli discharges have in fact created any illness in them.

Sincerely,


LAURENCE K. LAU
Deputy Director for
Environmental Health